

# DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

Attorney Docket No. 5347-204

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled  
**PATTERNING METHODS AND SYSTEMS USING REFLECTED INTERFERENCE PATTERNS.**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37 Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate, or of any PCT International application having a filing date before that of the application on which priority is claimed.

			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed
			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed
			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

60/185,288	February 28, 2000
Application Number(s)	Filing Date (MM/DD/YYYY)
Application Number(s)	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or § 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application (37 C.F.R. § 1.63(d)).

Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned
Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned
Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following registered attorney(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

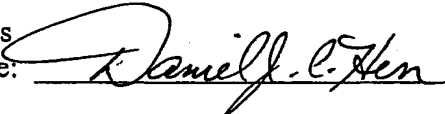
Customer Number 20792

Send correspondence to: Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
Post Office Box 37428  
Raleigh, NC 27627

Direct telephone calls to: Scott C. Hatfield  
(919) 854-1400

Facsimile: (919) 854-1401

Full name of (first/sole) inventor: Daniel J. C. Herr

Inventor's  
Signature:  Date: FEBRUARY 8, 2001

Residence: Chapel Hill, North Carolina

Citizenship: United States of America

Post Office Address: 1704 Ferrell Road  
Chapel Hill, North Carolina 27514

Full name of second inventor: **David Charles Joy**

Inventor's

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Knoxville, Tennessee

Citizenship: United States of America

Post Office Address: 525 Herron Road  
Knoxville, Tennessee 37996

# DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

Attorney Docket No. 5347-204

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled  
**PATTERNING METHODS AND SYSTEMS USING REFLECTED INTERFERENCE PATTERNS.**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37 Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate, or of any PCT International application having a filing date before that of the application on which priority is claimed.

			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed
			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed
			<input type="checkbox"/> Yes <input type="checkbox"/> No
Number	Country	MM/DD/YYYY Filed	Priority Claimed

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

60/185,288	February 28, 2000
Application Number(s)	Filing Date (MM/DD/YYYY)
Application Number(s)	Filing Date (MM/DD/YYYY)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or § 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application (37 C.F.R. § 1.63(d)).

Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned
Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned
Appln. Serial No.	Filing Date	Status Patented/Pending/Abandoned

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following registered attorney(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Customer Number 20792

Send correspondence to:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
Post Office Box 37428  
Raleigh, NC 27627

Direct telephone calls to:

Scott C. Hatfield  
(919) 854-1400

Facsimile:

(919) 854-1401

Full name of (first/sole) inventor: **Daniel J. C. Herr**

Inventor's

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence:

Chapel Hill, North Carolina

Citizenship:

United States of America

Post Office Address:

1704 Ferrell Road  
Chapel Hill, North Carolina 27514

Full name of second inventor: **David Charles Joy**

Inventor's

Signature:

David C Joy Date: Feb 8<sup>th</sup> 2001

Residence:

Knoxville, Tennessee

Citizenship:

United States of America

Post Office Address:

525 Herron Road  
Knoxville, Tennessee 37996



# ASSIGNMENT RECORDATION FORM COVER SHEET *Patents Only*

To: Commissioner for Patents:

Date: March 9, 2004  
Attorney Docket No. 5347-204

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

1. The University of Tennessee Research Corporation

2. Name and address of receiving party(ies):

University of Tennessee Research Foundation  
1534 White Avenue  
Suite 403  
Knoxville, Tennessee 37996-1527

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment  
☐ Merger  
☐ Security Agreement  
☒ Change of Name  
☐ Other

Execution Date: 1.

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application Serial No. 09/781,881 Patent No. \_\_\_\_\_

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
P. O. Box 37428  
Raleigh NC 27627

6. Total number of applications and patents involved: ☒ x

7. Total fee (37 CFR 3.41) \$40.00  
☒ Enclosed with original documents 7/8/2003  
☐ Authorized to be charged to deposit account

8. Deposit account number: 50-0220

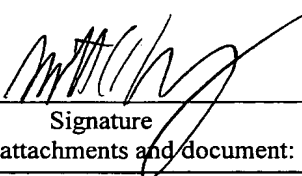
DO NOT USE THIS SPACE

9. Statement and signature

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Scott C. Hatfield, Reg. No. 38,176

Name of Person Signing

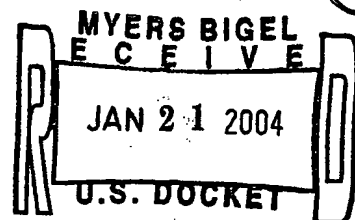
 03/09/04  
Signature Date

Total number of pages including cover sheet, attachments and document: 8

## CERTIFICATE OF MAILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MS Assignment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 9, 2004.

Joyce Paoli  
Joyce Paoli



**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JANUARY 12, 2004

PTAS



MYERS BIGEL SIBLEY & SAJOVEC  
SCOTT C. HATFIELD  
P.O. BOX 37428  
RALEIGH, NC 27627

01-19-04 A09:19 IN

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF NON-RECORDATION OF DOCUMENT**

DOCUMENT ID NO.: 102494733

THE ENCLOSED DOCUMENT HAS BEEN EXAMINED AND FOUND NON-RECORDABLE BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. THE REASON(S) FOR NON-RECORDATION ARE STATED BELOW. DOCUMENTS BEING RESUBMITTED FOR RECORDATION MUST BE ACCOMPANIED BY A NEW COVER SHEET REFLECTING THE CORRECT INFORMATION TO BE RECORDED AND THE DOCUMENT ID NUMBER REFERENCED ABOVE.

THE ORIGINAL DATE OF FILING OF THIS ASSIGNMENT DOCUMENT WILL BE MAINTAINED IF RESUBMITTED WITH THE APPROPRIATE CORRECTION(S) WITHIN 30 DAYS FROM THE DATE OF THIS NOTICE AS OUTLINED UNDER 37 CFR 3.51. THE RESUBMITTED DOCUMENT MUST INCLUDE A STAMP WITH THE OFFICIAL DATE OF RECEIPT UNDER 37 CFR 3. APPLICANTS MAY USE THE CERTIFIED PROCEDURES UNDER 37 CFR 1.8 OR 1.10 FOR RESUBMISSION OF THE RETURNED PAPERS, IF THEY DESIRE TO HAVE THE BENEFIT OF THE DATE OF DEPOSIT IN THE UNITED STATES POSTAL SERVICE.

SEND DOCUMENTS TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231. IF YOU HAVE ANY QUESTIONS REGARDING THIS NOTICE, YOU MAY CONTACT THE INDIVIDUAL WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.

1. PLEASE CORRECT THE COVER SHEET TO COMPLY WITH THE CHANGE OF NAME DOCUMENT.

MARCUS KIRK, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

07-14-2003



## ASSIGNMENT RECORDATION FORM C

102494733

To: Commissioner for Patents:

Date: July 8, 2003

Attorney Docket No. 5347-204

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

A. David Charles Joy

7.10.03

2. Name and address of receiving party(ies):

University of Tennessee Research Foundation  
1534 White Avenue  
Suite 403  
Knoxville, Tennessee 37996-1527

Additional name(s) of conveying party(ies) attached? Yes ☒ No

3. Nature of conveyance:

☐ Assignment  
☐ Merger  
☐ Security Agreement  
☒ Change of Name  
☐ Other

Execution Date:

A. (execution date of co-inventor A) B. (execution date of co-inventor B) C. (execution date of co-inventor C)

Additional name(s) & address(es) attached? Yes ☒ No4. Application Serial No. 09/781,881 Patent No. \_\_\_\_\_

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Additional numbers attached? Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
P. O. Box 37428  
Raleigh NC 27627

6. Total number of applications and patents involved: \_\_\_\_\_

7. Total fee (37 CFR 3.41) \$40.00  
☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number: 50-0220

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Scott C. Hatfield, Reg. No. 38,176

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: 6

## CERTIFICATE OF MAILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MS Assignment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 8, 2003.

Joyce Pauli

07/11/2003 ECOOPER 00000041 09781881

01 FC:8021

40.00 DP

OFFICE OF PUBLIC RECORDS  
2003 JUL 10 AM 7:38  
FINANCE SECTION

# ASSIGNMENT RECORDATION FORM COVER

06-13-2001



101748244

To the Honorable Commissioner of Patents and Trademarks:

June 6, 2001  
Attorney Dkt: 5347-204

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

David Charles Joy

2. Name and address of receiving party(ies):

The University of Tennessee Research Corporation  
1534 White Avenue  
Suite 403  
Knoxville, Tennessee 37996-1527

Additional name(s) of conveying party(ies) attached? Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment  
☐ Merger  
☐ Security Agreement  
☐ Change of Name  
☐ Other

Execution Date: February 8, 2001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application Serial No. 09/781.881 Patent No.

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Additional numbers attached? Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
P. O. Box 37428  
Raleigh NC 27627

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) \$40.00  
☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Statement and signature

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Scott C. Hatfield, Reg. No. 38,176

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: 3

Attorney Docket 5347-204

## ASSIGNMENT

THIS ASSIGNMENT, made by me, David Charles Joy, a citizen of the United States of America, residing at 525 Herron Road, Knoxville, Tennessee 37996;

WITNESSETH: That,

WHEREAS, I am a joint inventor of certain new and useful improvements in **PATTERNING METHODS AND SYSTEMS USING REFLECTED INTERFERENCE PATTERNS** for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. I hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 09/781,881, filed February 12, 2001) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, The University of Tennessee Research Corporation, an educational institution having a principal place of business at 1534 White Avenue, Suite 403, Knoxville, Tennessee 37996-1527, hereinafter referred to as assignee, is desirous of acquiring my entire right, title, and interest in and to said invention as described in said provisional application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, his successors and assigns, the entire right, title and interest in and to the said invention and application and provisional application (Application No. 60/185,288), and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, his successors and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I hereby request that said Letters Patent be issued in accordance with this assignment.

I further covenant and agree that, at the time of the execution and delivery of my presents, I possess full title to the invention and application above-mentioned, and that I have the unencumbered right and authority to make this assignment.

I further covenant and agree to bind my heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to me relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, his representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, his successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set our hands and seals on this 8th day of February, 2001.

David C Joy  
David Charles Joy  
David Charles Joy

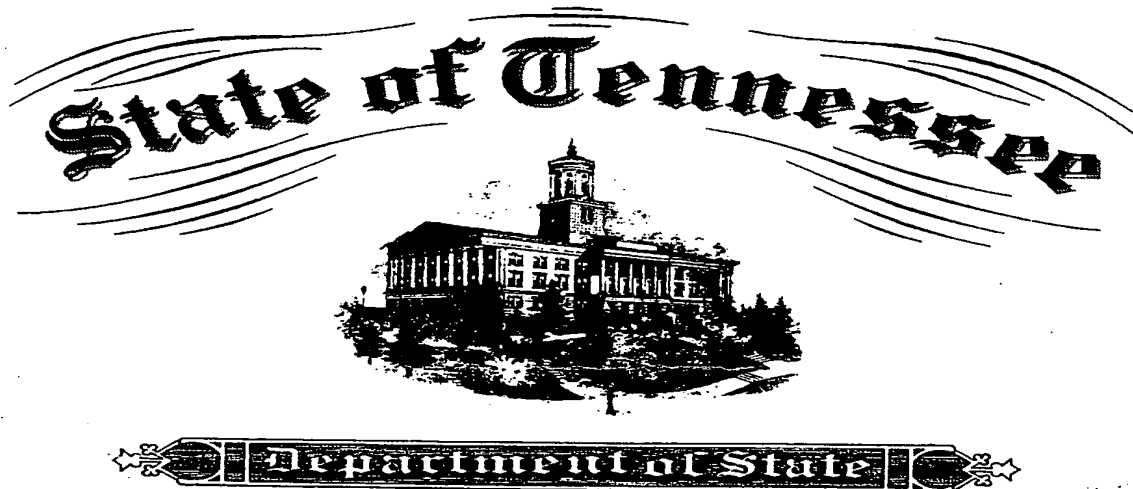
STATE OF TN )  
COUNTY OF Knox ) ss:

Before me personally appeared David Charles Joy, to me known to be the person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purpose therein stated, this 8th day of February, 2001.

Betty A. Harless  
Notary Public

SEAL

My Commission Expires: My commission expires July 5, 2004



I, RILEY C. DARNELL, Secretary of State of the State of Tennessee, do hereby  
certify that the Articles of Amendment to the Charter of

THE UNIVERSITY OF TENNESSEE RESEARCH CORPORATION  
were filed in this office on April 3, 2003, changing the name to:

UNIVERSITY OF TENNESSEE RESEARCH FOUNDATION



SS-4449

In Witness Whereof, I have hereto affixed my  
signature and the Great Seal of the State, at  
Nashville, this 14<sup>TH</sup> day of May  
In the year of our Lord two thousand three

Riley C. Darnell  
Secretary of State  
by Deborah S. Chaney



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SCIT

AUGUST 21, 2001

PTAS



\*101748244A\*

MYERS BIGEL ET AL  
SCOTT C. HATFIELD  
P.O. BOX 37428  
RALEIGH, NC 27627

08-24-01 A08:58 IN

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/06/2001

REEL/FRAME: 011877/0582  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

**ASSIGNOR:**

JOY, DAVID CHARLES

DOC DATE: 02/08/2001

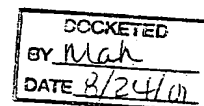
**ASSIGNEE:**

UNIVERSITY OF TENNESSEE RESEARCH  
CORPORATION, THE  
1534 WHITE AVENUE  
SUITE 403  
KNOXVILLE, TENNESSEE 37996-1527

SERIAL NUMBER: 09781881  
PATENT NUMBER:

FILING DATE: 02/12/2001  
ISSUE DATE:

STEVEN POST, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS





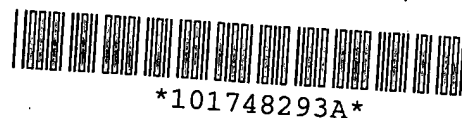


UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SCH

AUGUST 21, 2001

MYERS BIGEL SIBLEY & SAJOVEC PTAS  
SCOTT C. HATFIELD  
P.O. BOX 37428  
RALEIGH, NC 27627



\*101748293A\*

08-24-01 408:59 IN

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/08/2001

REEL/FRAME: 011878/0542  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
HERR, DANIEL J.C.

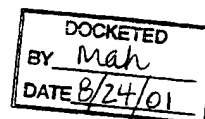
DOC DATE: 02/08/2001

ASSIGNEE:  
SEMICONDUCTOR RESEARCH CORPORATION  
P.O. BOX 12053  
RESEARCH TRIANGLE PARK  
NORTH  
CAROLINA

SERIAL NUMBER: 09781881  
PATENT NUMBER:

FILING DATE: 02/12/2001  
ISSUE DATE:

LAZENA MARTIN, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



# ASSIGNMENT RECORDATION FORM CO

06-13-2001



To the Honorable Commissioner of Patents and Trademark

101748293

June 6, 2001  
Attorney Dkt: 5347-204

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Daniel J.C. Herr

2. Name and address of receiving party(ies):

Semiconductor Research Corporation  
P.O. Box 12053  
Research Triangle Park, NC

Additional name(s) of conveying party(ies) attached? Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment  
☐ Merger  
☐ Security Agreement  
☐ Change of Name  
☐ Other

Execution Date: February 8, 2001

Additional name(s) & address(es) attached? Yes ☒ No

4. Application Serial No. 09/781,881 Patent No.

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Additional numbers attached? Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
P. O. Box 37428  
Raleigh NC 27627

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) \$40.00  
☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Scott C. Hatfield, Reg. No. 38,176

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments and document: 3

0000016 09761881

40.00

**ASSIGNMENT**

THIS ASSIGNMENT, made by me, Daniel J. C. Herr, a citizen of the United States of America, residing at 1704 Ferrell Road, Chapel Hill, North Carolina 27514;

WITNESSETH: That,

WHEREAS, I am a joint inventor of certain new and useful improvements in **PATTERNING METHODS AND SYSTEMS USING REFLECTED INTERFERENCE PATTERNS** for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. I hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 09/781,881, filed February 12, 2001) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, Semiconductor Research Corporation, a North Carolina corporation having a principal place of business at P.O. Box 12053, Research Triangle Park, State of North Carolina, hereinafter referred to as assignee, is desirous of acquiring the my entire right, title, and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, his successors and assigns, the entire right, title and interest in and to the said invention and application and provisional application (Application No. 60/185,288), and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, his successors and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I hereby request that said Letters Patent be issued in accordance with this assignment.

I further covenant and agree that, at the time of the execution and delivery of my presents, I possess full title to the invention and application above-mentioned, and that I have the unencumbered right and authority to make this assignment.

IN WITNESS WHEREOF, I have hereunto set our hands and seals on this 8<sup>th</sup>  
day of FEBRUARY, 2001.

STATE OF )  
COUNTY OF ) ss:

My Commission Expires: \_\_\_\_\_



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

Scit

AUGUST 21, 2001

PTAS



\*101748244A\*

MYERS BIGEL ET AL  
SCOTT C. HATFIELD  
P.O. BOX 37428  
RALEIGH, NC 27627

08-24-01 A08:58 IN

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/06/2001

REEL/FRAME: 011877/0582  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

**ASSIGNOR:**

JOY, DAVID CHARLES

DOC DATE: 02/08/2001

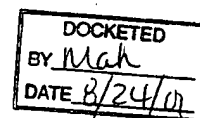
**ASSIGNEE:**

UNIVERSITY OF TENNESSEE RESEARCH  
CORPORATION, THE  
1534 WHITE AVENUE  
SUITE 403  
KNOXVILLE, TENNESSEE 37996-1527

SERIAL NUMBER: 09781881  
PATENT NUMBER:

FILING DATE: 02/12/2001  
ISSUE DATE:

STEVEN POST, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



# ASSIGNMENT RECORDATION FORM COVER

06-13-2001



101748244

To the Honorable Commissioner of Patents and Trademarks:

June 6, 2001

Attorney Dkt: 5347-204

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

David Charles Joy

2. Name and address of receiving party(ies):

The University of Tennessee Research Corporation  
1534 White Avenue  
Suite 403  
Knoxville, Tennessee 37996-1527

Additional name(s) of conveying party(ies) attached? Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment  
☐ Merger  
☐ Security Agreement  
☐ Change of Name  
☐ Other

Execution Date: February 8, 2001

Additional name(s) & address(es) attached? Yes ☒ No

4. Application Serial No. 09/781,881 Patent No.

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Additional numbers attached? Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Scott C. Hatfield  
Myers Bigel Sibley & Sajovec  
P. O. Box 37428  
Raleigh NC 27627

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) \$40.00  
☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Scott C. Hatfield, Reg. No. 38,176

Name of Person Signing

Signature

06/06/01

Date

Total number of pages including cover sheet, attachments and document: 3

ASSIGNMENT RECORDATION 00000117 09781881

21 JUL 2001

40.00 00

Attorney Docket 5347-204

**ASSIGNMENT**

THIS ASSIGNMENT, made by me, David Charles Joy, a citizen of the United States of America, residing at 525 Herron Road, Knoxville, Tennessee 37996;

WITNESSETH: That,

WHEREAS, I am a joint inventor of certain new and useful improvements in **PATTERNING METHODS AND SYSTEMS USING REFLECTED INTERFERENCE PATTERNS** for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. I hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 09/781,881, filed February 12, 2001) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, The University of Tennessee Research Corporation, an educational institution having a principal place of business at 1534 White Avenue, Suite 403, Knoxville, Tennessee 37996-1527, hereinafter referred to as assignee, is desirous of acquiring my entire right, title, and interest in and to said invention as described in said provisional application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, his successors and assigns, the entire right, title and interest in and to the said invention and application and provisional application (Application No. 60/185,288), and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, his successors and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I hereby request that said Letters Patent be issued in accordance with this assignment.

I further covenant and agree that, at the time of the execution and delivery of my presents, I possess full title to the invention and application above-mentioned, and that I have

I further covenant and agree to bind my heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to me relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, his representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, his successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set our hands and seals on this 8th day of February, 2001.

David C Joy  
David Charles Joy

STATE OF

TN

)  
) ss:  
)

COUNTY OF

Knox

Before me personally appeared David Charles Joy, to me known to be the person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purpose therein stated, this 8th day of February, 2001.

Betty A. Harless  
Notary Public

SEAL

My Commission Expires: My commission expires July 5, 2004